



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/579,182

01/22/2007

Nigel P. Clarence

CAF-35302/03

1545

25006

7590

11/01/2010

GIFFORD, KRASS, SPRINKLE, ANDERSON & CITKOWSKI, P.C

PO BOX 7021

TROY, MI 48007-7021

EXAMINER

WIEHE, NATHANIEL EDWARD

ART UNIT

PAPER NUMBER

3745

MAIL DATE

DELIVERY MODE

11/01/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/579,182	Applicant(s) CLARENCE ET AL.	
	Examiner NATHANIEL WIEHE	Art Unit 3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,6,8,11-20,22-28,30-37,44,45 and 47-53 is/are rejected.
- 7) ☒ Claim(s) 3,4,7,9,10,21,29,38-43 and 46 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

Applicant's arguments filed 22 September 2010 have been fully considered but they are not persuasive.

Applicant first notes that the Miele reference was cited in the IPRP and indicated that the instant invention was "found to be novel and inventive as Miele fails to disclose a number of features of the present invention". However, an IPRP is "preliminary" in nature and serves as guidance for both applicant and examiner, but the IPRP is not binding upon the national stage entry of the application. The examiner also notes that the patentability standards under the PCT and those of US practice are not always identical.

Applicant asserts that one would not construe Miele's seal portion (13) to be a "casing closure element" now amended to be a "casing closure plate" as claimed in the instant invention. Applicant notes that the specification "consistently attributes the pump casing closure element with particular mechanical properties" and, given these properties, Miele's seal "does not possess the geometrical nor mechanical properties of a plate". The examiner respectfully disagrees. Claim terms are interpreted under their plain meaning in accordance with the "ordinary and customary meaning [as] attributed to them by those of ordinary skill in the art" unless given an express special definition. *Brookhill-Wilk 1, LLC v, Intuitive Surgical, Inc.*, 334 F.3d 1294, 1298 67 USPQ2d 1132, 1136, See MPEP 2111.01(III). A casing closure element has no extraordinary meaning to those in the art of pumps and merely means an element that operates to close the casing. Miele's seal clearly meets such a limitation. Further, a casing closure plate is

Art Unit: 3745

distinguished from a "closure element" only in that its form must be consistent with a plate. According to the Meridian-Webster dictionary, a plate means "a smooth flat thin piece of material" <<http://www.merriam-webster.com/dictionary/plate>>. Again, Miele's seal is a flat and smooth piece of elastomer consistent with the claim limitation.

Therefore, Miele's seal (13) does meet the plain meaning of the term "closure plate" as would be construed by one of ordinary skill in the art. Applicant has effectively requested that the examiner, improperly, read into the claim limitations from the specification. See MPEP 2111.01(II). Applicant cannot predicate the meaning of claim terms merely by noting the properties of the element as described in the specification. If Applicant wished a certain term to have a specific technical meaning, then such an explicit meaning should have been put forth in the specification. Applicant is invited, in connection with a timely amendment, to introduce these "particular mechanical properties" and/or attributes to further limit the claimed "closure plate".

Applicant next asserts that the "seal portion (13) and the bearing plate (4) form integral parts of the same component: the rotor housing (1)" and thus are not elements themselves but all constitute the housing. The examiner has had some difficulty in understanding this argument, but believes that, effectively, since Miele's parts (4,1,13) are connected together, in their final assembled state, then they cannot be construed as the claimed insert and plate elements. Such an argument is simply unpersuasive. Components/parts do not lose their identity merely by being assembled into a final structure. This simply cannot be the case. Under Applicant's contention, the examiner could not point to the engine of an airplane as corresponding to a claim limitation since,

Art Unit: 3745

it is assembled into the final structure of the airplane and is thus forms part of the airplane and not an engine in its own right.

Applicant next asserts that the "additional part (34)" has a bellows (29) attached to its *inner* surface and thus the inner surface cannot define a portion of the pump volute as claimed. The examiner respectfully disagrees. It appears as though Applicant has confused the inner surface, with respect to the pump, with the lower surface as shown in Figs. 15 & 16 of Lehe. First, the examiner notes that claims 50-53, to which Lehe is applied, at least appears to be directed to Applicant's alternative embodiment of Fig. 12 wherein the insert is "adjacent a suction branch", i.e. the pump's inlet. Rather, the inner surface of Lehe is the surface of part (34) that faces inwardly with respect to the pump, i.e. the round surface opposite the part's (34) connect to the bellows (29). Such a surface does, in fact, form a portion of the pump volute and is consistent with an insert as presented by Applicant in the embodiment of Fig. 12.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2,5,6,8,11-20,22-26,28,30-37,44,45,47 and 48 are rejected under 35 U.S.C. 102(b) as being anticipated by DE 197 18 027 A1, hereinafter "Miele". Miele discloses a centrifugal pump including a pump insert (4) located within a pump casing (11) and connected thereto through the use of an inter-engaging profiled coupling

Art Unit: 3745

arrangement, in the form of a bayonet connection (12a,12b). The pump also provides a casing closure plate (13) sandwiched directly between the pump insert (4) and the pump casing (11). The pump insert (4) and the casing closure plate (13) are located about the pump shaft (6). The inter-engaging coupling arrangement achieves an appropriate coupling of the pump insert (4) to the pump casing (11). The inter-engaging coupling arrangement is formed by a plurality of respective radially extending complementary teeth (12a,12b) and associated slots. Also, the respective cylindrical land areas of the pump casing (11) and the pump insert (4) constitute the respective support surfaces from which the coupling elements extend. Bayonet connections, such as that of Miele, are arranged so that the two parts (here 4,11) are initially brought together such that the coupling elements are misaligned and then rotating the two parts with respect to each other such that the engagement surfaces of the coupling elements slide into engagement with each other. The pump insert (4) includes an annular portion and a cylindrical portion that extends substantially perpendicularly from the outer surface of the annular portion. (See Fig. 2). The forward, inner surface of the pump insert (4) forms a portion of the pump volute.

Regarding claims 17 and 19, the term "integral" is sufficiently broad to embrace constructions united by such means as fastening and welding (in re Hotte (C.C.P.A.) 157 U.S.P.Q. 326); the term is not necessarily restricted to a one-piece article (in re Kohno (C.C.P.A.) 157 U.S.P.Q. 275); and may be construed as relatively broad (in re Dike (C.C.P.A.) 157 U.S.P.Q. 581).

Regarding claims 18 and 20, the limitation “formed separately of and subsequently connected to” is being treated as a product by process limitation; that is that the coupling elements are made by forming them separately and then attaching them to the pump insert/casing. As set forth in MPEP 2113, product by process claims are NOT limited to the manipulation of the recited steps, only to the structure implied by the steps. Once a product appearing to be substantially the same or similar product is found, a 35 U.S.C. § 102/103 rejection may be made and the burden is shifted to applicant to show an unobvious difference. See MPEP 2113.

Regarding claim 33, the limitation “adapted for use on both lined and unlined pump” is being treated as an intended use limitation. The recitation of intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. Here, the pump of Miele is capable of having a liner that does not interfere with or contact the casing and insert coupling, e.g. a liner applied as a coating. Thereby, the pump of Miele meets the claim limitation in that it is capable of use with a lined as well as unlined pump.

Regarding claims 36 and 37, the method of assembling a portion of the pump is apparent from the structure of Miele and the nature of Miele’s bayonet connection, as discussed above.

Claims 50-53 are rejected under 35 U.S.C. 102(b) as being anticipated by Lehe et al. (5,427,498), hereinafter “Lehe”. Lehe discloses a centrifugal pump including, in at least one embodiment, a pump insert (34) having an inner surface defining a portion of

Art Unit: 3745

the pump volute that is coupled to the pump casing (1), adjacent the suction branch, i.e. the pump inlet, through the use of an inter-engaging profiled coupling arrangement, i.e. a "bayonet mounting". (See Figs. 15 & 16). The insert (34) provides a flow path between the suction branch, i.e. inlet, and the pump impeller (6). (note Fig. 2). The pump includes a casing closure plate (29) forming a portion of the pump suction branch sealing arrangement that is secured against the pump casing insert. (See Fig. 15).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over DE 197 18 027 A1, hereinafter "Miele". As discussed above, Miele discloses the invention substantially as claimed except for the use of coupling surfaces that define a wedge profile. However, it is exceedingly well known in the art of bayonet connections to utilize wedge/ramp profiles on the engagement surfaces so as to produce a firm, tight connection. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the bayonet connection of Miele by utilizing engagement surfaces having a wedge profile since such surfaces are well known in the art for the purpose of providing a firm/tight connection.

Allowable Subject Matter

Claims 3,4,7,9,10,21,29,38-43 and 46 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATHANIEL WIEHE whose telephone number is (571)272-8648. The examiner can normally be reached on Mon.-Thur. and alternate Fri., 7am-4:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on (571)272-4820. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3745

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/NATHAN WIEHE/
Nathan Wiehe
Examiner
Art Unit 3745